

DRAWING AMENDMENTS (Other than Those Requested on Form PTO-948)

Drawing amendments are provided on separate sheets accompanying this Response.

REMARKS

1. The Amendments and the Support Therefor

No claims have been canceled, eleven new claims (24-34) have been added, and claim 1 has been amended to leave claims 1-34 in the application. A PTO-2038 for any newly-submitted claims in excess of the amount previously paid for should accompany this Response, as per 37 CFR §1.16(b)-(d), with the fee due being calculated as follows:

FEE CALCULATION

For	Already Paid	No. Extra	Rate (NOT Small Entity)	Fee (NOT Small Entity)
Total Claims	34 - 23 =	11	x \$50 =	\$550
Independent Claims	3 - 3 =	0	x \$200 =	\$0
Total:				\$550

No new matter has been added by the amendments or new claims, wherein:

- ***Independent claim 1*** has been amended to further specify that the pump's communication means remain on the pump, and the article's communication means remain on the article, during connection of the pump and article, identification of the article, and communication of activation instructions to the pump (see, e.g., FIG. 3 and paragraph [0043] of the application, which is presented as paragraph [0051] of corresponding US Publn. 2004/0127937);
- ***New independent claims 24 and 31*** find support in (for example) claim 1;
- ***New dependent claims 25, 26 and 33*** find support in (for example) claim 2;
- ***New dependent claim 27*** finds support in (for example) claim 6 (see also fluid communication line 60 in FIG. 5);
- ***New dependent claims 28, 29 and 34*** find support in (for example) claim 12;
- ***New dependent claims 30 and 32*** find support in (for example) paragraphs [0066]-[0068] of the application (which are presented as paragraphs [0074]-[0076] of corresponding US Publn. 2004/0127937).

2. Objections to the Drawings

Replacement drawing sheets (which are each labeled “Replacement Sheet” in the top margin) addressing the drawing objections accompany this Response.

3. Rejection of Claims 1-6 under 35 USC §102 in view of GB2214678 to Jackson

GB2214678 to *Jackson* describes a system wherein a valve stem cap for a tire bears encoded rings (see rings 2 in cap 1 of FIG. 1), similar to a bar code, whereby the valve stem cap may be removed from the tire valve stem and inserted into a recess in a reader (see reader 4 with recess 3 in FIGS. 1-2). The reader serves as a pump control unit which attaches to the tire (via mounting head 8 in FIG. 2), and it then fills the tire in accordance with the information encoded on the valve stem cap. See particularly page 3 line 19-page 4 line 3 and page 4 line 23-page 5 line 15 of *Jackson*.

Claim 1 has been amended to further specify that the respective communication means of the pump and article remain on the pump and article (1) during connection of the pump and article, (2) during identification of the article, and (3) during the supply of activation instructions to the pump. This is in contrast to *Jackson*, wherein the tire’s valve stem cap (which bears the tire’s communication means) must be removed from the tire and connected to the reader to identify the tire and supply pump activation instructions. In short, in *Jackson*, the article’s communication means do not remain on the article during identification and pump instruction, and thus claim 1 (and its dependent claims 2-6) are not anticipated. Further, it cannot be obvious to modify *Jackson* to meet the features of claim 1, since it is simply not possible to leave the encoded valve stem cap on the tire during connection of the pump and article (tire), and during subsequent filling of the article (tire): the article (tire) naturally cannot be filled unless the valve stem cap is removed.

4. Rejection of Claims 1, 2, 4, 7-11, 22, and 23 under 35 USC §102 in view of US Patent 6,148,888 to Loureiro Benimeli

US Patent 6,148,888 to *Loureiro Benimeli* illustrates a system in FIGS. 1-5 wherein a tire valve 1 (FIG. 1) includes a thermocouple 4 (see column 5 lines 43-51). An air supply 3 (FIG. 4) then has a mouthpiece 18 (FIG. 3) for supplying the tire valve 1 with air, with the mouthpiece 18 having

a contact 20 for the thermocouple 4 whereby the air supply 3 may measure both the valve's tire pressure and temperature when the air supply's mouthpiece 18 is connected to the tire valve 1. The air supply 3 may then fill the tire to the appropriate pressure for the measured tire temperature (column 7 line 47-column 8 line 18).

An alternative system is illustrated in FIGS. 6-8, and described at column 3 line 48-column 4 line 46 and at column 8 line 19 onward, wherein pressure and temperature sensors are situated within a tire rim (see 30 in FIG. 6) such that tire pressure and temperature within a mounted tire are sensed, and an associated microprocessor then translates these signals for radio frequency transmission (see FIG. 7) to a remote device (32 in FIG. 6). This remote device 32 may be situated within the car bearing the tires, e.g., in the car's dashboard; see column 9 lines 36-41. The remote device 32 then communicates tire temperature and pressure to an inflating machine 35 (FIG. 6).

It is notable that the *Loureiro Benimeli* system *does not* identify the tire, as recited in claim 1. Rather, the tire simply communicates its pressure and temperature to the air supply 3 of FIG. 4, and/or to the remote device 32 and inflating machine 35 of FIG. 6. The make/model of the tire (more specifically its nominal fill pressure) must be identified by the user in order to fill the tire correctly (i.e., to fill it to the nominal pressure required for the make/model of tire in question). Buttons are then provided on the air supply 3, and/or on the remote device 32 (see 22 in FIG. 4 and 34 in FIG. 6), which allow the user to choose the fill pressure settings for the tire in question (see column 7 lines 47-60 and column 8 lines 32-38).

Claim 1 is therefore not anticipated by *Loureiro Benimeli* since the *Loureiro Benimeli* systems do not (wirelessly) identify the article upon connection of the pump and article, as recited in claim 1. The system of FIGS. 1-5 uses a wired connection (between the thermocouple 1 of FIG. 1 and the contact 20 of FIG. 3), and requires that the user identify the article (tire) via buttons 22 on air supply 3 (FIG. 4). The system of FIGS. 6-8 wirelessly communicate pressure and temperature data from the tire 31 to the remote device 32 and in turn to the inflating machine 35 (FIG. 6), but here too the user is required to identify the item being filled (the make/model of the tire) via buttons 34 on the remote device 32. Claim 1, which requires wireless identification of the article upon connection, is therefore not anticipated. Claims 2, 4, 7-11, 22, and 23, which depend from claim 1, are not anticipated by *Loureiro Benimeli* for at least the same reasons as their parent claim 1.

5. Rejection of Claims 3, 5, and 6 under 35 USC §103 in view of US Patent 6,148,888 to Loureiro Benimeli

Kindly reconsider and withdraw these rejections. Looking to *Loureiro Benimeli*, why would one of ordinary skill see any benefit whatsoever to situating the *wireless* communication means of the pump or the article (tire) – such as a wireless receiver or transmitter – in the connection means (i.e., in the tire valve stem or in the pump filling nozzle)? Keeping in mind that *Loureiro Benimeli* uses radio frequency communications and can therefore situate the communication means in a wide variety of locations, and that it would be difficult to situate the communication means in the connection means (i.e., in the tire valve stem and/or the pump filling nozzle) owing to their size and configuration, why would an ordinary artisan adapt *Loureiro Benimeli* to attain the claimed arrangement? Stated more specifically, why situate a radio transmitter in the tire valve stem when it could be situated anywhere about the tire (including at far more convenient locations, as shown at 30 in FIG. 6), and/or why situate a radio receiver in the pump filling nozzle when it could be situated anywhere about the pump (including at far more convenient locations, as shown at 35 in FIG. 6)? Adopting the claimed arrangement in *Loureiro Benimeli* adds difficulty and provides no apparent benefit. Since there is no true reason why one would modify *Loureiro Benimeli* to meet these claims, kindly withdraw the rejections.

In addition, it is noted that these rejections are based on an improper *per se* rule of obviousness, i.e., the claims in the current case are rejected based on a holding in a different case based on different facts. The rejections state:

[It] would have been obvious to one having ordinary skill in the art at the time the invention was made to locate the communication means in the defined areas as claimed, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

This approach is incorrect because it fails to make the fact-intensive inquiry mandated by §103, and it does not show where the prior art would truly motivate or suggest to one of ordinary skill in the art that *Loureiro Benimeli* should be modified to meet the claimed arrangement. The Court of Appeals for the Federal Circuit has explicitly forbidden the use of *per se* rules in *In re Ochiai*, 37 USPQ2d 1127 (Fed. Cir. 1995):

The use of per se rules, while undoubtedly less laborious than a searching comparison of the claimed invention -- including all its limitations -- with the teachings of the prior art, flouts section 103 and the fundamental case law applying it. Per se rules that eliminate the need for fact-specific analysis of claims and prior art may be administratively convenient for PTO examiners and the Board. Indeed, they have been sanctioned by the Board as well. But reliance on per se rules of obviousness is legally incorrect and must cease. Any such administrative convenience is simply inconsistent with section 103, which, according to *Graham* and its progeny, entitles an applicant to issuance of an otherwise proper patent unless the PTO establishes that the invention as claimed in the application is obvious over cited prior art, based on the specific comparison of that prior art with claim limitations. We once again hold today that our precedents do not establish any per se rules of obviousness, just as those precedents themselves expressly declined to create such rules. Any conflicts as may be perceived to exist derive from an impermissible effort to extract per se rules from decisions that disavow precisely such extraction.

Id. at 1133. See also *Litton Systems Inc. v. Honeywell Inc.*, 39 USPQ2d 1321, 1325 (Fed. Cir. 1996) ("As we expressly recognized in *Ochiai*, the obviousness inquiry is highly fact-specific and not susceptible to *per se* rules. The Supreme Court has underscored the fact intensive nature of the test for obviousness."). Stated simply, while it perhaps may have been obvious to "rearrange parts" in the cited *Japikse* case, it is not seen to be obvious here to rearrange the parts of *Loureiro Benimeli* to attain the claimed arrangement – there is simply no true basis for doing so.

6. Double Patenting

The nonstatutory double patenting rejection is obviated by the accompanying terminal disclaimer filed in compliance with 37 CFR §1.321.

7. New Claims 24-31

New independent claim 24 is submitted to be allowable because GB2214678 to *Jackson* does not have a pump connector and an article connector which, when connected *with their air passages in communication*, wirelessly communicate information. Stated differently, under the language of claim 24, *Jackson*'s valve stem cap is not an "article connector" as recited: while it may wirelessly convey information, it plainly does not have an article connector air passage through which air may be received or released. Further, it would plainly not be obvious to modify the *Jackson* valve stem cap to include an article connector air passage as recited, since the *Jackson* valve stem cap would

then no longer function for its intended purpose: it is to serve as a cap, not a conduit. Further, US Patent 6,148,888 to *Loureiro Benimeli* does not have one *connector* wirelessly read information from the other *connector* (i.e., the air supply nozzle does not wirelessly read information from the valve stem, or vice versa), and as discussed in the prior Section 5 of this Response, there is no practical reason why one would modify *Loureiro Benimeli* to have this feature.

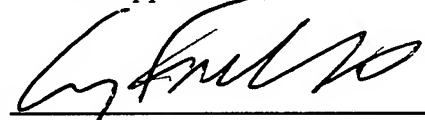
Claims 25-30, which are dependent from new independent claim 24, are submitted to be allowable for at least the same reasons as claim 24.

New independent claim 31 is submitted to be allowable for at least the same reasons as claims 1 and 24 (as discussed above), and its dependent claims 32-34 are submitted to be allowable for at least the same reasons as claim 31.

8. In Closing

If any questions regarding the application arise, please contact the undersigned attorney. Telephone calls related to this application are welcomed and encouraged. The Commissioner is authorized to charge any fees or credit any overpayments relating to this application to deposit account number 18-2055.

For the Applicant,



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ATTACHMENTS:

- Substitute Drawings
- Terminal Disclaimer
- PTO-2038 (\$680 = \$550 claims fees + \$130 Terminal Disclaimer fee)